

Basic Plan - Appendix IV

ACRONYMS & DEFINITIONS GLOSSARY

Advisory:	Issued by the National Weather Service, used as a method for disseminating hurricane and storm data to the public every six hours.
Affected Swath/List:	Areas that a storm center could cross, given average forecast error.
ARC:	American Red Cross
ARC Shelter:	A traditional American Red Cross shelter, either in a coastal locality or further inland, for people displaced by a major hurricane.
Average Error:	Geographic reference to where a storm could track during the 72 hour forecast period. National Hurricane Center assigns an approximate 60% confidence that the storm will track within the swath.
Behavioral Analysis:	A survey-based study conducted to determine perceptions and expected response of populations threatened by various hurricane events with regard to evacuation decisions, probable evacuation destinations, public shelter use and utilization of available vehicles.
Bulletin:	A public-oriented message released from the National Hurricane Center at a time other than when scheduled advisories are required.
Clearance Times:	The time required to clear the roadways of all evacuating vehicles – before the arrival of 34-knot winds, times expressed in hours.
Coastal Flood Statement:	A public information message released by a regional and/or local Weather Service facility outlining/recapping/amplifying, in plain text, a given coastal flooding situation.
Decision Arc:	Evacuation clearance times converted to distance by accounting for the forward speed of the hurricane.
Decision Arc Method:	Assists officials in timing of evacuation decisions at which the radius of sustained 34-knot winds intersects the Decision Arc/Point.
DHS:	Department of Homeland Security
Drill:	An activity that tests, develops, or maintains skills in a single emergency response procedure, usually involving hands-on activity, activation of emergency communications, and use of equipment that would be used in a real emergency.
EDT:	Eastern Daylight Time is the time zone of the Western Hemisphere falls mostly along the east coast of North America and the west coast of South America. Its time offset is -5 hrs Zulu/GMT or UC-5.

Terms & Definitions – Continued

EDST:	Eastern Daylight Savings Time is the artificial time zone achieved by adjusting clocks by -1 hour so that afternoons have more daylight and mornings have less. Its time offset is -4 hrs Zulu/GMT/UT.
EST:	Eastern Standard Time is the time zone for the United States east coast. Specifically; it is Eastern Standard Time when observing standard time (<i>winter</i>). Its time offset is -5 hrs Zulu/GMT/UT.
EOC:	Emergency Operations Center
ETIS:	Evacuation Traffic Information System
Evacuation:	Populations asked or ordered to leave an area (<i>their residence and/or business</i>) to seek a safer location from a hazard threat.
Evacuation Route:	Road or highway designated by the Virginia Department of Transportation as a primary route for motorists evacuating from the threat of a hurricane. The routes are marked with signs that indicate “Hurricane Evacuation Route”.
Evacuation Timing:	Appropriate start and end times of an evacuation based on storm and traffic conditions.
Evacuation Window:	The time between the release of an evacuation advisory and when areas to be evacuated must be cleared.
Evacuation Zone:	A specified area designated by local officials, and based on surge inundation risk and mobile home populations.
Exercise:	An activity designed to promote emergency preparedness; test or evaluate emergency operations, policies, plans, procedures, or facilities; train personnel in emergency duties; and demonstrate operational capability.
FEMA:	Federal Emergency Management Agency
FHWA:	Federal Highway Administration
FIRM:	Flood Insurance Rate Map
Gale Force Winds:	Sustained winds of 34 knots (<i>39 mph</i>) or higher.
Gale Warning:	A condition set and established by the National Weather Service for a geographic area, and message released, that gale force winds (<i>sustained 39-54 mph/34-47 kts</i>) are forecast to occur.
GIS:	Geographic Information System is a computer system used for storage, retrieval, mapping, and analysis of geographic and reference data.

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GMT:	Greenwich Mean Time is the measure of time obtained from the rotation of the earth at the Greenwich Observatory in England. Also commonly referred to as Universal Time or ZULU time.
HAR:	Highway Advisory Radio
HES:	Hurricane Evacuation Study
Host Locality:	A county, city or town located along one or more designated evacuation routes that have agreed to provide public shelter for evacuation from coastal localities in the event of a hurricane.
Hurricane:	An intense tropical storm system with pronounced rotary circulation and constant wind speed of 74 mph/64 kts or stronger.
Hurricane Advisory:	Public and public official-oriented position/forecast advisory. Issued by the National Hurricane Center, Miami, through the National Weather Service, Miami, Florida. Issued at 0900Z, 1500Z, 2100Z, and 0300Z hours.
Hurricane Marine Advisory:	Marine interest/public official-oriented advisory made from the same models and runs as the public advisory. Contains detailed positional and wind velocity data, including movement and forecast positions.
Hazard Mitigation Plan:	A document that is adopted by state and local governments that contains the policies, programs, strategies, and action(s) necessary to protect property from damages caused by hurricanes.
Hurricane Local Statement:	A public release prepared by local National Weather Service offices in or near a threatened area giving specific details for its city/county/town warning area on (1) weather conditions, (2) evacuation decisions made by local officials, and (3) other precautions necessary to protect life and property.
Hurricane Preparedness Program:	Department of Homeland Security (<i>DHS</i>) / Federal Emergency Management Agency (<i>FEMA</i>)'s program to foster hurricane preparedness in coastal areas by providing financial and technical assistance to state and local officials in conducting hurricane evacuation studies.
Hurricane Shelter:	Facility designated by a locality for use as a shelter for people whose homes are threatened by storm surge flooding or whose mobile homes are subject to hurricane force winds. A shelter provides basic support services.
Hurricane Warning:	A condition set and established by the National Weather Service 24 hours prior to the arrival of tropical storm force winds for the geographic area specified in the warning.
Hurricane Watch:	A condition set and established by the National Weather Service 36 hours prior to the arrival of tropical storm force winds for the geographic area specified in the watch.

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HURREVAC:	A restricted-use computer program funded by FEMA and USACE for government emergency managers to track hurricanes and assist in evacuation decision-making.
Inland Wind Model:	Applies two parameter decay equation to the hurricane wind field at landfall to estimate the maximum sustained surface wind as a storm moves inland.
ITS:	Intelligent Transportation Systems utilize synergistic technologies and systems engineering concepts to develop and improve transportation systems.
Intermediate Advisory:	A scheduled advisory issued by the National Weather Service at 2 to 3 hour intervals between the four main daily advisories/marine advisories, commencing when watches or warnings have been issued associated with the subject storm. Once watches/warnings are in effect, 3-hour intervals are in effect; 2-hour intervals are issued once the storm center or hurricane eye is being “tracked” by land-based weather radar.
JIC:	A joint information center is a location where public information representatives of several agencies/localities are gathered to coordinate important information.
KTS:	A knot is one nautical mile per hour. (<i>A nautical mile = 1.15 statute miles.</i>). Conversions: sm = nm x 1.15; nm = 0.87 x sm; mph = 1.15 x kts; kts = mph x 0.87.
Latitude:	Surface measurement of the earth from the equator to the pole (<i>set = 90 degrees</i>); expressed in degrees, minutes, and seconds or degrees, minutes and tenths of minutes Handy measure on charts - one minute of latitude (<i>not longitude</i>) equals one nautical mile.
LIDAR:	Light Detection And Ranging technology used to determine land elevation.
Local Emergency Coordinator:	The individual at the local level of government who is assigned the primary responsibility for all matters pertaining to emergency management.
Local Statement:	A public information message released by a regional and/or local National Weather Service Forecast Office outlining/amplifying, in plain text, a given coastal flooding situation.
Longitude:	Surface measurement of earth measured from Greenwich Meridian east and west for 180 degrees. Measurement is expressed in degrees, minutes and seconds or degrees, minutes, and tenths of minutes. Distance to degree conversion is a spherical variable and there is no easy conversion.
Major Hurricane:	Hurricane of Category 3, 4, or 5. A Category 4 storm is generally considered the worst-case scenario for latitudes as far north as Virginia.

Terms & Definitions – Continued

MEOW:	Maximum Envelope of Water stores the maximum water surface elevation in each SLOSH grid cell for all hurricane tracks given a specific direction, forward speed and storm intensity.
MEOW Affected List:	Listing of localities affected by the Decay Model MEOW.
Mitigation Measure:	Any action, structure, or program that reduces the risk or vulnerability of the hazard.
MLLW:	The average of the lower low water height of each tidal day observed over the National Tidal Datum Epoch.
MOMs:	Maximum of Maximums; represents the maximum water surface elevation for each SLOSH grid regardless of specific direction, forward speed and storm intensity.
NIMS:	National Incident Management System is the Department of Homeland Security (<i>DHS</i>) / Federal Emergency Management Agency (<i>FEMA</i>)'s strategy to implement comprehensive emergency management, which capitalizes on commonality of functions to be performed (<i>warning, communications, evacuation, sheltering, mass care, etc.</i>), regardless of the hazard, and brings a greater economy of effort to the emergency preparedness posture.
NAVD 88:	The North American Vertical Datum of 1988 is the vertical control datum established for vertical control surveying in the United States of America based upon the General Adjustment of the North American Datum of 1988.
NGVD 29:	National Geodetic Vertical Datum of 1929 is a system that was used by surveyors and engineers for most of the 20th Century. It has been the basis for relating ground and flood elevations, but it has been replaced by the more accurate NAVD 88.
NHC:	National Hurricane Center.
NWS:	National Weather Service.
ROLR:	Refuge of Last Resort is a facility that may be identified by the locality (<i>at-risk or host</i>) that can provide temporary relief from severe weather. A refuge of last resort is not intended to be designated as a “shelter” by the locality and may not be able to provide basic services such as food, accommodations for sleeping, first aid or security. It should be considered only as a probable safe haven for evacuees who are unable to clear the area until the storm passes.
Risk Locality:	The 21 coastal localities (<i>cities, counties and town</i>) identified in the Virginia Hurricane Evacuation Study as subject to a storm surge in the event of a hurricane.

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Saffir/Simpson Scale:	A scale developed by Herbert Saffir, Dade County, Florida, consulting engineer, and Dr. Robert H. Simpson, former National Hurricane Center director, that projects potential hurricane damage assessments from five hurricane intensities: Category Number 1, the least damaging, through Category Number 5, the most severe storm
SLOSH:	Sea, Lake and Overland Surges from Hurricanes is a computerized model run by the NHC to estimate storm surge heights and winds resulting from historical, hypothetical, or predicted hurricanes by taking into account; <i>(1) Pressure (2) Size (3) Forward speed (4) Track (5) Winds</i> . It serves as a storm surge prediction model used in basins that have irregular coastlines and contain large bays or estuaries.
Special Advisory:	A unscheduled advisory issued by the National Weather Service when, in the judgment of the Hurricane Center forecasters, a significant deviation from forecasted track/speed/intensity has occurred, resulting in change of timing, intensity, or areas affected such that the status of watches and warnings may be impacted.
Storm Scenario:	Groups of evacuation zones that will be threatened by the predicted storm surge from specific hurricane intensity categories.
Storm Surge:	The increase in height of the surface of the sea caused by the forces of the storm and the slope of the continental shelf that causes the water level to rise as it approaches land.
Storm Warning:	A condition set and established by the National Weather Service when storm force winds (<i>sustained 55-73 mph/48-63 kts</i>) are forecast to occur.
TEOC:	Transportation Emergency Operations Center.
TOC:	Transportation Operations Center.
TPC:	Tropical Prediction Center.
Tornado:	A small mass of air that whirls rapidly about an almost vertical axis; made visible by clouds and by dust and debris sucked into the system.
Tornado Warning:	A condition set and established by the National Weather Service to warn an area that a tornado may be imminent. It can be issued after either a tornado or funnel cloud has already been spotted, or if there are radar indications that a tornado may be possible.
Tornado Watch:	A condition set and established by the National Weather Service when weather conditions are favorable for the development of severe thunderstorms that are capable of producing tornadoes.

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Transportation Analysis:	A study to determine the time required to evacuate the threatened population under a variety of hurricane conditions and to evaluate traffic control measures.
Tropical Cyclone:	A non-frontal, low-pressure large scale system that develops over tropical or sub-tropical waters and has a definite organized circulation.
Tropical Cyclone Forecast/Advisory:	Issued by the National Hurricane Center every six (6) hours, at 0500, 1100, 1700 & 2300 hours, or more frequently if human population is threatened. This information provides wind field information, direction and speed of the tropical cyclone.
Tropical Depression:	An early stage in the development of a hurricane; sustained winds are at least 23 mph but less than 39 mph.
Tropical Storm Force Winds:	Sustained wind speeds of 37 to 74 mph.
Tropical Storm Warning:	A condition set and established by the National Weather Service when tropical storm conditions are forecast to exist within 24 hours for the geographic area addressed in the warning. Warning may be issued prior to the 24-hour window, if severity and forecast confidence warrant.
Tropical Storm Watch:	A condition set and established by the National Weather Service when tropical storm conditions, including winds from 39 to 73 mph (<i>35 to 64 knots, 63 to 117 km/h</i>) pose a possible threat to a specified coastal area within 36-48 hours.
Tropical Wave:	The earliest stage in the development of a hurricane; a region of convective activity over tropical seas with a detectable center of low pressure; the initial stage in the development of a hurricane.
UT:	Universal Time is the measure of time obtained from the rotation of the earth, at the Greenwich Observatory in England. The world's current time standard is Coordinated Universal Time, which is kept by atomic clocks.
Vulnerability Analysis:	Study that identifies those areas, populations and facilities that are vulnerable to specific hazards under a variety of hurricane threats.
Vulnerable Population:	Individuals residing within the evacuation zones subject to storm surge, and also residents of mobile homes.
WFO:	National Weather Service Forecast Office
Wind Swath:	The display of the National Hurricane Center projected swath of winds specific to each advisory.
ZULU Time:	Is a time reference used in the military and in navigation generally as a term for Universal or Greenwich Mean Time.